



Dr. Papini in Armenia with a Ferula

Studies and research activity

(Curriculum in Italian <http://www.biolveg.unifi.it/CMpro-v-p-95.html>)

Graduated in Biology (110 cum laude on 110). PHD in Biosystematics and Plant Ecology (Biosistemática ed Ecologia Vegetale) in year 1998. Researcher in General Botany (sector BIO/01) since 2007 by the University of Florence, Department of Plant Biology (Faculty of Science).

Occasionally reviewer for the journals *Biochemical Systematics and Ecology* and *Annals of Botany*. Councillor of the international scientific journal *Phytomorphology* for the period 2005-2009.

Member of the Board of Directors of the Institute and Museum of History of Science Galileo Galilei (<http://galileo.imss.firenze.it/general/index.html>) since year 2000.

Member of the Board of Directors of the Regional Public Corporation for the services for right to education of Florence (Azienda Regionale Diritto allo Studio di Firenze) <http://www.dsu.fi.it/>.

Managing Director of the scientific journal *Caryologia* (International Journal of Cytology, Cytosystematics and Cytogenetics; <http://www.unifi.it/caryologia>) of the University of Florence (since year 2004).

Member of the Scientific Committee of the Italian Platform for Biofuels: <http://www.unibo.it/Portale/Ricerca/Servizi+Docenti+Ricercatori/finanzeuropei/biofuelsitalia.htm>

Teaching

Biology of Algae, curriculum for Master Degree in Conservation and management of natural resources (Natural Science, Faculty of Science). Workshops: during 2004 Analysis of Biological Sequences, for the course "Open Source software in Medicine", Faculty of Medicine, University of Florence; in year 2006 "Programmed Cell Death in plants, particularly of reproductive structures" for the PHD School in Biology and Biotechnology of the University of Lecce.

Dissertation/thesis proposed on the following themes: anatomical and ultrastructural studies on reproductive structures of Angiosperms; anatomical and ultrastructural studies on lipid storage in Angiosperms and other photosynthetic organisms; molecular phylogeny of Angiosperms and other photosynthetic organisms; function and structure of root developmental genes.

Research activity and scientific interests

Research themes: Cell biology and embryology of Angiosperms and other photosynthetic organisms. Structure and ultrastructure (light microscopy and Transmission electron Microscopy) of vegetative and reproductive structures of Angiosperms. Development of reproductive structures. Programmed Cell Death in plants.

Study of the storage of lipids in photosynthetic organisms and use as biofuels. Molecular Evolution, particularly of developmental genes and molecular phylogeny of some Angiosperm groups (Apiaceae, Bromeliaceae, Chenopodiaceae).

Scientific collaboration: with foreign institutions Pietro Lio', Senior Lecturer at the University of Cambridge, Computer Laboratory, UK (molecular evolution); Jianquan Liu, Key Laboratory of Arid and Grassland Ecology, Lanzhou University, Lanzhou 730000, China (biofuels plants adapted to arid and salt environments); Jose L. Vesprini, CONICET. Facultad de Ciencias Agrarias UNR cc14 S2125ZAA, Zavalla, Argentina (Embryology of Angiosperms).

Main recent publications

Papini A., Mosti S., Brighigna L. (1999) Programmed cell death events in the tapetum development of Angiosperms. *Protoplasma* 207: 213-221.

Mosti S., **Papini A.**, Andalo' C. and L. Brighigna (2001) Ultrastructural aspects of the hypanthial epithelium of *Selenicereus grandiflorus* (L.) Britton & Rose (Cactaceae). *Flora* 196(3): 194-203.

Brighigna L., **Papini A.**, Mosti S., Cornia A., Bocchini P., Galletti G. (2002) The use of tropical Bromeliads (*Tillandsia* spp.) for monitoring atmospheric pollution in the town of Florence (Italy). *Rev. Biol. Tropical* 50(2): 577-585.

Cecchi Fiordi A., **Papini A.** and L. Brighigna (2002) Programmed Cell Death of the nonfunctional megaspores in *Larix leptolepis* (Sieb. Et Zucc.) Gordon (Pinaceae): ultrastructural aspects. *Phytomorphology* 52(2-3): 187-195.

Selvi F, **Papini A.** and M. Bigazzi. Selvi F. (2002) Systematics of *Nonea* (Boraginaceae-Boragineae): new insights from phenetic and cladistic analyses. *Taxon* 51: 719-730.

Hilger H. H., Selvi F., **Papini A.** and M. Bigazzi (2004) Molecular systematics of Boraginaceae tribe Boragineae based on ITS1 and *trnL* sequences, with special reference to *Anchusa* s. l. *Annals of Botany* 94(2): 201-212.

Selvi F., **Papini A.**, Hilger H H, Bigazzi M, Nardi E. (2004) The phylogenetic relationships of *Cynoglottis* (Boraginaceae-Boragineae) inferred from ITS, 5.8S and *trnL* sequence variation. *Plant Systematics Evolution* 246(3-4): 195-209.

Bellarosa R., Simeone M. C., **Papini A.** and Schirone B. (2005) Utility of ITS Sequence Data for Phylogenetic Reconstruction of Italian *Quercus* spp. *Molecular Phylogenetics and Evolution* 34: 355-370.

Papini A., Tripanera G.B., Maggini F., Filigheddu R., Biondi E. (2004) New insights in *Salicornia* L. and allied genera (Chenopodiaceae) inferred from nrDNA sequence data. *Plant Biosystems* 138(3): 215-223.

Milocani E., **A. Papini**, L. Brighigna (2006) Ultrastructural studies on bicellular pollen grains of *Tillandsia seleriana* Mez (Bromeliaceae), a neotropical epiphyte. *Caryologia* 59(1): 88-97.

Papini A., Mosti S. (2006) Notes on *Trochiscanthes* Koch (Apiaceae) on the basis of ITS rDNA sequence. *Webbia* 61(2): 217-225.

Papini A., G. Tani, P. Di Falco and L. Brighigna (2006) Interdependence of the ontogeny of two essential foliar structures in a representative of the neotropical genus *Tillandsia* (Bromeliaceae):

stomata and absorbing trichomes. Journal of agriculture and environment for international development. 99(3-4): 175-186.

Vesprini J. L., E. Milocani, **A. Papini**, L. Brighigna (2006) Programmed cell death in the nucellus of *Tillandsia* (Bromeliaceae). Caryologia 59(4): 334-339.

Papini A. (2006) The systematic position of *Chamaesciadium* C. A. Meyer (Umbelliferae) on the basis of nuclear ITS sequence. Flora Mediterranea 16: 5-15.

Selvi F., M. Bigazzi, H. H. Hilger and **A. Papini** (2006) Molecular phylogeny, morphology and taxonomic re-circumscription of the generic complex *Nonea/Elizaldia/Pulmonaria/Paraskevia* (Boraginaceae-Boragineae). Taxon, 55(4): 907-918.

Papini A., Banci F. and E. Nardi (2007) Molecular evidence that genus *Carum* L. (Apiaceae) is polyphyletic. Genetics and Molecular Biology, 30(2): 475-482.

Mosti S., **Papini A.**, Brighigna L. (2008) "A new quantitative classification of ecological types in the bromeliad genus *Tillandsia* (Bromeliaceae) based on trichomes" Revista de Biologia Tropical 56(1): 191-203.

Modallal N., Abderrahman S. M. and **A. Papini** "Cytogenetic Effect of *Arum maculatum* Extract on the Bone Marrow Cells of Mice" (accepted for publication by Caryologia, 3 December 2008)

Papini A., Tani G., Di Falco P., Brighigna L. "The ultrastructure of the development of *Tillandsia* (Bromeliaceae) trichome, and details of the wing cells degeneration". (Accepted for publication by Flora 9 Dec 2008).